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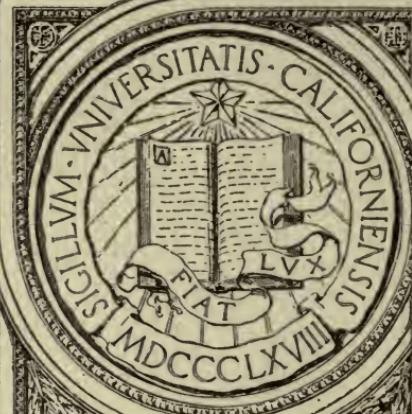
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University of Mississippi

REPORT ON ORGANIZATION

OF THE DEPARTMENT OF

AGRICULTURE AND THE MECHANIC ARTS.

DR. JOHN N. WADDEL, *Chancellor University of Mississippi:*

Dear Sir,—In accordance with suggestions made by yourself as well as several members of the Board of Trustees, I endeavored, during my recent attendance upon the meeting of the American Association for the Advancement of Science, to obtain as much information as possible concerning the organization, practical working, and success of the several Agricultural and Mechanical Colleges now in operation in the United States, under the land-grant made for the purpose. I found, however, that but very few representatives of such institutions were in attendance at Indianapolis; and that a call for a special convention of presidents and professors of agricultural colleges, to meet at Chicago on the 24th inst., had been issued. Under the circumstances, I thought it incumbent upon me not to let this unusually favorable opportunity pass unimproved; and so, after the adjournment of the Indianapolis convention, proceeded to Chicago.

I found the attendance much larger than, from the limited publicity of the call and short notice given, I had been led to expect. The meeting seemed in this case *really* to justify the use of a much-abused phrase—viz., to “supply a want long felt.” It appeared in the course of the discussions, that the predominant thought of the originators of the call had been the establishment of uniformity in the agricultural experiments conducted by the several institutions; and some of the delegates could not, to the last, divest themselves of the idea that this subject should have been made paramount. But the great majority evidently held that the consideration of the educational interests, and of the results reached by the various plans of organization and study, was first in importance; and the reports made thereon, successively as called upon, by the presidents or other representatives of twelve institutions (two or three only of importance being unrepresented), were decidedly the most interesting and practically important feature of the meeting. The general conviction of the great benefits to be derived from a more frequent personal interchange of views, soon found expression in the appointment of a committee on the formation of a permanent organization. In view of the brief space of time allowed for consideration, and of wide differences of opinion as to the scope to be given to the

association, the committee reported in favor of referring the whole subject to a committee consisting of the officers of the convention; the latter adjourning, after a two days' session, to meet at the call of the president, Dr. Gregory, of the Illinois Industrial University.

I herewith subjoin the press reports of the debates, tolerably correct as far as they go, but of course very defective as regards many important points of detail, concerning which I took pains to inform myself as fully as possible in private conversation. I will endeavor to present to you as briefly as may be the general results arrived at, which to my mind settle conclusively the plan that ought to be adopted in the organization of our own agricultural and mechanical department.

The general plan of instruction varies, as you are aware, between two extremes; represented, respectively, by the original organization of the Agricultural College of Pennsylvania on one hand, and by the Sheffield School of Science, at Yale College, on the other. In the latter institution, the theory and practice of agriculture and the mechanic arts are taught in the lecture-room and laboratory alone. In the Pennsylvania College the practice, or in other words the *handicraft*, of agriculture was originally made altogether the predominant feature; it was a large model farm, on which the students were the laborers; their spare time only, so to speak, being devoted to the study of principles, and general education. It was thought that this plan would best conduce to what is popularly thought to be *practical* education, and secure popular support and patronage to the institution; the more as the labor of the students, though not directly compensated, served to diminish greatly their expenses in the way of boarding, lodging, etc.

At first this system seemed destined to be successful, but after a few years it became manifest that it did not fulfill the requirements of the times. The constant drudgery of a minimum of three hours' daily labor was felt to be particularly onerous by the more advanced students, and by those "farmers' sons" specially intended to be benefited by the school, but who had long ago acquired the mere handicraft of agricultural operations, and could not see the propriety of thus detracting from their opportunities for higher education, and, as they thought, "being compelled to support the institution by their labor."

Without examining in detail, for the present, all the concurrent causes, it may suffice to state that, three years ago, the patronage of the institution had so grievously dwindled, that a total reorganization became imperative. The essential changes made were a diminution of the hours of obligatory and uncompensated labor to about one half—say ten hours per week—and its restriction, as obligatory, to the Freshman and Sophomore years. This system has had but a two-years' trial, and under it the prosperity of the institution has risen to a satisfactory level. Nevertheless, I think I interpret rightly the remarks of some of its officers in stating, that the tendency is toward a still further reduction of obligatory mechanical labor, rather than in the reverse direction.

The experience of the Pennsylvania College has thus, in a comparatively brief space of time, verified the conclusions arrived at both in England and on the continent of Europe—viz., that truly practical education in agriculture is not that which, by a mere routine repetition of mechanical operations, interlarded with a little explanatory theory, attempts to conciliate the popular prejudice against "book-learning." The subject has been well and thoroughly investigated by Prof. McChesney, of Illinois, whose valuable paper on "Agricultural Education in Europe," published in the report

of the Commissioner of Agriculture for 1868, has exerted a most beneficial effect upon the educational programme of the American colleges just being organized.

But before passing to the consideration of that golden mean which seems destined to realize, to the greatest possible extent, the benefits of technical education, and which has been successfully introduced into most of the Western colleges, let us for a moment consider the actual and possible results of the other extreme above referred to—viz., that of the Sheffield School. It is hardly claimed even by its most ardent apologists, that it would be a proper training-ground for the bulk of the agricultural population; yet it may be seriously questioned whether, even as it is, it does not contribute more toward the progress of agriculture and the mechanic arts than would be the case with an institution based on the so-called “practical” plan. The little knowledge, apart from mere practice, with which the student is sent forth from the “practical” school, will be extremely apt to be of that dangerous order which obfuscates common sense, while favoring that arrogant self-reliance, which is as characteristic of the sciolist, as modesty and reticence is of the true scholar. It is too often the case that the men who plume themselves upon being pre-eminently *practical*, are so only with reference to one particular locality or set of circumstances, and fail utterly so soon as removed from the limited circle where their memorized rules are applicable. The truly practical man is he who, by combining the knowledge of principles *and* practice, is enabled to adapt the latter to any change of circumstances and external conditions.

While, therefore, an institution like the Sheffield School may not return many students to the cornfields whence they came, on account of the taste acquired for more abstract professions, it at least sends forth scholars who, either as teachers, superintendents, or in numerous cases as amateur farmers in later life, contribute largely to the progress and elevation of the pursuit of agriculture. As one of the delegates at the Chicago convention pregnantly remarked, “an institution whence have issued Johnson’s works on ‘How Crops Grow’ and ‘How Crops Feed,’ can hardly be charged with failing to benefit the cause of agricultural education.”

But since we are nowise compelled to accept either of the extremes mentioned, it behoves us to consider what are the proper ends to be attained in the establishment of these colleges. It is thought by some that the immediate object in view should be to educate, as far as possible, “every farmer’s son in the country;” but such diffusive education can never be the object of the higher educational institutions until we shall be much nearer to the millennium. Before “every farmer’s son” shall be able to receive and practice the principles of agriculture, the most complicated of all arts, it is necessary that the rudiments at least of Natural Science should be taught in the primary schools—that boys should be taught to reason in Physics, Chemistry, and Physiology, as they now do in Arithmetic. That this is a state of things far from Utopian, has already been sufficiently proven. It will become less and less difficult as our knowledge, as well of the subjects themselves as of the rational method of teaching, progresses. But at present, and for some time to come, the higher education in agricultural as well as other colleges is likely to be the privilege of comparatively few, whose fortune, early opportunities, or talent, allow them to attain that amount of preliminary training, and to spend in their college course that amount of time and money (whether their own or provided by scholarships), commensurate with the magnitude of the end to be attained.

In the words of the able committee report on the course of study in the Illinois

Industrial University: "The thorough mastery of these arts, and of the sciences applicable to them, requires an education different in kind, but as systematic and complete, as that required for the comprehension of the learned professions. It thus avoids the folly of offering, as leaders of progress in the splendid industries of the nineteenth century, men of meager attainments and stinted culture; and steers clear also of that other and ab surder folly of supposing that mere common school-boys, without any thorough discipline, can successfully master and apply the complicated sciences which enter into and explain the manifold processes of modern Agricultural and Mechanic Art. Nor is it forgotten that man is something more than the artisan, and that manhood has duties and interests higher and grander than those of the workshop and the farm. Education must fit for society and citizenship, as well as for science and industry."

It is a maxim well settled by the history of civilization, that learning and enlightenment radiate from centers, whose influence in elevating the general standard of education is sensibly proportional to the elevation of their own standards respectively. To lower the standard on pretense of benefiting a larger circle, has ever proved a lamentable failure, however plausible it may sound in the mouth of a demagogue on the stump. Rapid progress in popular enlightenment has ever been achieved rather through the example and influence of a few shining lights, whose leadership the masses strove to follow. A Dickson in every county of the state would do far more toward the popularization of rational methods of agriculture, than any amount of diluted knowledge diffused among the population could do in an equal length of time.

While, therefore, access to the direct benefits of the institution should be as easy as consistent with its limited funds, we should stoutly insist that its main object is to impart, besides a general education, a thorough knowledge of the principles of agriculture, combined with such an acquaintance with its practice as will enable its graduates not only to *know how things should be done, but to do them themselves in the field.* But, beyond the practice requisite to attain this end, the mechanical operations should not be made to encroach upon the time of the student; nor should the farm, upon which this practice is to be acquired, be considered otherwise than as a means of instruction, both by way of exercise and example, in the details. In the latter respect it should and must be a "model," but not in the sense of pecuniary success; it being fully understood that the latter can only result from a judicious application of the general principles to local circumstances infinitely varied. The flagrant failure of the old-time "model farms" to educate truly practical men, resulted chiefly from their being accustomed to carrying out a certain routine, necessary to pecuniary success in that particular locality, but perhaps fatal to the same in any other.

A truly "model" farm cannot afford to be embarrassed by the requirements for instruction; and still less can instruction in general principles afford to be hampered by local conditions of pecuniary success. This is the verdict of dearly bought experience.

Apart, however, from its object as a means of instruction, the Agricultural College farm should, and is required by law to, subserve another important but clearly distinct purpose—viz., that of carrying on agricultural experiments. This is a delicate and most difficult duty, if properly performed; and is in the last degree incompatible with that lucrativeness which is the first postulate of a "model" to be copied.

Of course it would be very desirable that a *truly model farm*, in every sense, should be near, or even attached to, the college; and this is the case in several now existing. But then it must be distinctly understood to be a separate concern, and that neither experimenting nor instruction are lucrative in their nature. Such a farm, to be looked at and worked on, if desired, but not otherwise interfered with by the agricultural students, may be usefully established at any time when capital for the purpose may be at disposal; but it is not to be considered a matter of primary necessity, though useful as an illustration of correct application of principles to a particular case.

It follows from the above considerations, that the labor required for the cultivation of the college farm should be provided for independently of the obligatory labor of students. Nevertheless, it is undoubtedly desirable that those who may wish to perform agricultural labor, beyond that required as a part of instruction, should be afforded opportunity of doing so. And this is actually the practice of the majority of our agricultural colleges, labor so performed being paid for by the hour, according to kind or quality, or by the job, as the case may be. In Western colleges especially not only do students thus materially reduce their expenses, but the useful occupation thus afforded, whether on the farm or in the workshop, contributes materially toward the preservation of good health, order, and morality. Of course the amount of labor thus obtained will vary greatly; but the operations of the farm generally can and should be extended in proportion as the demand for such occupation may justify. This system has been carried out most successfully and extensively at the Illinois Industrial University, as well as at the Michigan College of Agriculture. At the Iowa College, thus far, all the labor has been performed by students; but the experience of that institution, exceptionally favorable in this as well as in some other respects, is perhaps too brief to serve as a safe basis elsewhere.

The dormitory system (conjointly in many cases with a Commons Hall connected more or less directly with the college farm) has thus far been introduced into most of the colleges now in operation—more, it would seem, from the force of habit than from a conviction of its adaptation to the best interests of education. The military discipline concurrently established has, in several cases, prevented the serious troubles mostly attendant upon that system; but there is a decided disposition not to have any more of it hereafter, and to dispense with it, when practicable, where it exists. At the Illinois Industrial University, as well as at that of Iowa, a very successful trial has been made of a system of self-government among the students—offenders against the rules adopted by them, and ratified by the faculty, being brought before a court elected by themselves, which generally punishes by fine. Whether this system will stand the test of time remains to be seen; but the faculty seem altogether hopeful of its success, thus relieving them from the most disagreeable and thankless duties which it falls to the lot of college officers to perform.

A striking feature in all, or almost all, the Western colleges is the unquestioned admission of young women to any of the courses they may desire to follow; and the universal testimony goes to show that not only do they, as a general thing, fully hold their own as compared with the male students, but that their influence on the behavior and diligence of the other sex is extremely beneficial. It may perhaps be fairly assumed that the benefit is reciprocal; but it has been a matter of surprise to me to find almost the same courses prescribed to both sexes. Though not perhaps in accordance with the “advanced” views of the times, it has seemed to me that a

special course in *housekeeping*, in all its branches, might advantageously be substituted for some of the studies now pursued—if not inconsistent with the XVth Amendment.

I must here allude to a wide-spread prejudice which, in this state as well as elsewhere, has manifested itself with reference to the local association of literary and “professional” students, with those of the colleges in question. It is thought by some that there is a natural antagonism between the two classes, and that, in order to protect the latter class against the airs of superiority assumed, and more or less “demoralizing” influence exerted by the former, it would be necessary to separate them as widely as possible; the more as for the agricultural students a different kind of discipline would be necessary.

This whole argument is based primarily upon the supposed existence of a prejudice against the comparative dignity of agriculture and the mechanic arts, as connected with manual labor. But it forgets that this prejudice, so far as it can claim any consideration in our day and country, is directed against the mere *handicraftsman*—the uneducated laborer who works by rote only, like a machine. It is this connection which has *engendered* the prejudice on the part of the educated classes. But if any such feeling against physical labor, *as such*, even when connected with high mental culture, still rankles in the public bosom, it certainly is the peculiar duty of our educational institutions to discountenance it as a relic of barbarism, and to assert stoutly the equal dignity of all departments of knowledge. Indeed, few of the “learned” professions require so great a scope of scientific knowledge, sound judgment, and common sense, as is involved in a thorough understanding of the principles and practice of agriculture.

The objection against the association of the two classes of students might be valid, were it contemplated that those of the industrial colleges should be mere apprentices to a *trade*. So far from this, the law of Congress explicitly requires that they shall be *educated*; and as educated men they will be socially the peers of those similarly trained, whatever be their particular occupation. Nor can there be any valid reason for subjecting one class of students to a discipline different from that prescribed for the other, if the true object of the Industrial Colleges be kept in view. To “train the millions to their trades” is equally beyond their power and their province.

Practically, the difficulties encountered on this score have been insignificant in the West. And even in the East, where the literary corps of Yale, Harvard, and Amherst were wont to look down a little upon the “Aggies,” a sound beating in a boat-race, lately administered by the latter, has brought about quite a revulsion of feeling. The compulsory labor system has doubtless been largely concerned in perpetuating the ancient prejudice; and its abandonment will remove the last bar to the recognition of industrial students as members of the “professional” class.

As regards the length of the full course, it is without exception, I believe, fixed at four years; “and that,” as a distinguished delegate at Chicago said with emphasis, “is full short for what they ought to learn, in justice either to themselves or the institution. It would be sufficient did they but come better prepared.”

I have but cursorily adverted to the mechanical department of these colleges. There are but few, so far, in which the mechanic arts have been given equal prominence with agriculture; among these are Kentucky University and the Illinois Industrial University, where regular workshops have been erected; so that, *e. g.*, at

the last-named institution, a complete steam-engine was last year constructed by the advanced class. The plant of this department is of course expensive; and while in Minnesota, for example, it may fairly claim first attention as being first in importance, for the same reason agriculture should in this state enjoy a similar precedence, so long as a dilution of the available resources upon both branches simultaneously would emasculate both.

As regards military instruction, it has in most cases been found to weigh heavily on the institutions, unless some other chair was filled by an incumbent able and willing to perform this besides his regular duties. A strong disposition was manifested by the convention toward a removal by Congress of the military clause as obligatory upon the colleges, unless special provision were made for a detail of United States army officers for the purpose.

As regards the composition of the Faculties, the departments are subdivided in a great variety of ways, according to the means of the institution. I have found no reason to change the general programme submitted to you, some time ago, with reference to the special case of our agricultural and mechanical department, and its extremely limited means, so far as we can at present foresee.

To fulfill the primary conditions of the grant there will be required, in addition to the chairs now established (though not all filled), the following appointments:

1. A Professor of Practical Agriculture in all its branches, including dairy-farming, stock-raising, and fruit-culture.
2. A Professor of Technology and the Mechanic Arts.
3. A Superintendent of the Farm.

This minimum array of employees presupposes, of course, that—

1. The Chair of Civil Engineering be filled; also,
2. The Chair of Botany and Zoölogy; Horticulture to be included in the same.
3. That Agricultural Chemistry, as well as the special Agriculture and Economic Geology of the State, be otherwise provided for.

The latter subjects might, with particular propriety, be taught by the State Geologist, who must be presumed to be, *ex officio*, most especially competent in the premises. The results of the geological and agricultural survey of the state (the field-work of which is now as nearly completed as for the present may be expedient) would thus be promulgated and rendered available to the progressive men of the state, in the most direct and authentic manner; while the remaining office-work, together with such as is involved in the continually increasing demand for information and analyses of all kinds, on the part of the agricultural and industrial population, could still progress as heretofore under his direction, in the hands of competent assistants.

It need hardly be insisted on that in order to make the above "*personnel*" suffice for the requirements of instruction, the greatest care in the selection of incumbents is absolutely essential. It is comparatively easy to find men who can, or think they can, teach either theory *or* practice satisfactorily; but it is far from common to find those who combine both, especially when the range of knowledge required is great. No one who has not made the subjects to be taught a special study, and given proof, by independent research, of his ability to teach without a text-book before him, should be deemed competent to fill the chairs in question. The superintendent of the farm should be a man not only of practical experience and common sense, but of sufficient education and understanding of agricultural science to enable him to second, intelli-

gently, the plan of instruction pursued by the professor of agriculture, and to carry out experiments prescribed.

The college farm need not at first be very large—no larger than is requisite for the purpose of exemplifying the uses of the various improved implements, manures, and modes of culture of the different crops suited to the climate, to such an extent that every student may be enabled to become personally conversant with them. And the immediate outlay required for such an establishment would not be very great, so long as matters are not complicated by entering to any large extent upon cattle-raising and dairy-farming, which of themselves necessitate a large plant.

As for purely experimental plots, while ultimately a matter of considerable importance, I do not think they ought to be allowed to encroach upon the primarily needful provision for agricultural education, until funds shall be more abundant than at present is likely to be the case.

A botanical garden, with green-house and propagating pits, are of course essential prerequisites to successful instruction in the important department of Botany and Horticulture. They should be established concurrently with the farm, under the direction and superintendence of the professor.

A collection of improved implements is also indispensable. This, however, can probably be obtained at small cost, in view of the fact that no advertisement can be more useful to the manufacturer, than the exhibition and use of his implements at the State College of Agriculture. Most of the Western colleges have thus, I find, received the major part of their stock of implements either as presents, or at a heavy discount from the selling price. Similar advantages can no doubt be secured for our institution, if proper steps in that direction be taken.

I estimate that an expenditure of from six to eight thousand dollars, applied with a strict view to prime necessities, would secure a plant sufficient to form such a basis for practical instruction in the agricultural department as to insure a fair start. Much more than this will of course become necessary as the classes advance and increase in numbers; but we may confidently hope that the magnitude of the interests involved, and the direct benefits accruing to the industrial classes, will induce a wise liberality toward the institution as necessities may arise. But for the additions made to the congressional grant by state appropriations, as well as donations and endowments from individuals and communities, several of the most successful institutions in the country could scarcely have been called into existence, much less launched on their present career of usefulness and prosperity.

All of which is respectfully submitted.

EUG. W. HILGARD,

Professor of Experimental and Agricultural Chemistry.

UNIVERSITY OF MISSISSIPPI, August 29, 1871.

MINUTES

OF THE

BOARD OF TRUSTEES

OF THE

UNIVERSITY OF MISSISSIPPI,

WITH AN

APPENDIX

CONTAINING DOCUMENTS IN REFERENCE TO THE ORGANIZATION OF THE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS IN CONNECTION WITH THE UNIVERSITY.

OXFORD, MISSISSIPPI.

1871.

given Aug
1871

MINUTES OF THE ANNUAL MEETING.

OXFORD, MISS., JUNE 22, 1871.

This being the day appointed for the annual meeting of the Board of Trustees of the University of Mississippi, several members presented themselves; but, a quorum not being present, no meeting was held.

FRIDAY, JUNE 23, 1871.

The Board met this day. The following members answered to their names, viz.:

His Excellency J. L. ALCORN, Gov. of the State and <i>ex-officio</i> Pres't of the Board,		
Messrs. CHAS. CLARK,	T. D. ISOM,	J. TARBELL,
C. W. CLARKE,	H. F. SIMRALI,	A. WARNER,
G. C. CHANDLER,	THO. E. B. PEGUES, Secretary.	

A quorum being present, the President announced that the Board was ready to proceed to business.

On motion, the reading of the minutes of the last meeting was dispensed with.

The Chancellor of the University appeared and presented his Annual Report. By request of the Board he proceeded to read the same.

Moved by Mr. Charles Clark, that so much of the Chancellor's report as refers to the election of additional Professors be referred to a committee of three, with instructions to report at the earliest possible moment. Carried. The President appointed Messrs. Chas. Clark, C. W. Clarke, and H. F. Simrall on this committee.

The report of the Treasurer was presented, and on motion of Mr. H. F. Simrall was referred to a committee of three for examination.

The chair appointed Messrs. H. F. Simrall, C. W. Clarke, and G. C. Chandler on this committee.

The President stated that the students had requested him to bring the subject of payment for music for commencement exercises before the Board. After some discussion it was resolved, on motion of Mr. C. Clark, that the sum of four hundred dollars be appropriated for that purpose.

Moved by Mr. Tarbell, that a committee of three be appointed to correspond with distinguished educators, with a view to the election of additional Professors. Carried.

On motion of Mr. Tarbell, it was resolved that it is not now expedient to erect a Chancellor's residence.

On motion of Mr. Warner, it was resolved that a committee of three be appointed to examine into and report on the practicability of renting a house for the Chancellor. The chair appointed Messrs. Warner, Simrall, and Chandler.

On motion of Mr. Tarbell, it was resolved that the same committee inquire into the probable cost of a Chancellor's residence, and the amount of funds likely to be on hand for the coming year.

On motion of Mr. Tarbell, it was resolved that the Executive Committee take the subject of repairs of buildings into consideration.

A communication from the students on the subject of the plank-walk was referred to the Executive Committee.

The Board took a recess of one hour.

A F T E R N O O N .

The Board reassembled. Mr. John Duncan appeared, and took his seat.

Moved by Mr. Warner, that the reports of Professors be read. Carried. By request of the Board the Chancellor read the following reports, viz.: Reports of Prof. Garland, of Prof. Craft, and Adjunct Professor Phipps, of Prof. Little, and Assistant Professor Loughridge, Librarian.

Moved by Mr. Clark, that the reports of Professors be referred to the Committee on the Chancellor's Report and on Additional Professors. Carried.

Moved, that the President appoint the Executive Committee. Carried. The President appointed Messrs. Isom, West, Tarbell, Warner, and Duncan.

The subject of the Agricultural Department, and the appropriation by Congress of land in aid of said object, and the setting apart by the Legislature to the University of the State of two fifths of the fund arising from the sale of said land, having been introduced and discussed, the further consideration of the matter was, on motion of Mr. C. Clark, postponed until to-morrow morning.

Moved by Mr. Tarbell, that the subject of the Reading-room and Library be referred to the Executive Committee, with power to make such rules and regulations as to them may seem proper.

Moved by Mr. Tarbell, that the diploma fee to the present and future graduating classes be abolished. Carried.

Moved by Mr. Warner, that the tuition fee now required by law be hereafter remitted to all students.

On motion of Mr. C. Clark, the motion was laid over until to-morrow morning.

On motion of Mr. Tarbell, a committee of three was appointed to take into consideration the subject of the Preparatory Department of the University. The chair appointed Messrs. J. Tarbell, C. W. Clarke, and J. Duncan.

Satisfactory evidence having been furnished by the Chancellor that they had passed the usual examinations, the degree of Bachelor of Arts was, on motion of Mr. C. Clark, conferred on the following young gentlemen, and the Chancellor directed to deliver them their Diplomas on commencement-day, viz.:

LOUIS MARTIN BALL,	THOS. B. HARGROVE,	WM. THOS. ROSS,
JAS. H. BARR,	CHAS. S. MCKENZIE,	J. J. SHIRLEY,
D. C. M. BIGHAM,	CORNELIUS MILLER,	M. E. TAYLOR,
JNO. L. DODD,	JNO. W. MHOON,	J. W. THOMPSON,
ARTHUR FANT,	JAS. K. P. NEWTON,	EDMUND WATKINS,
J. W. FLINN,	J. T. PATTERSON,	A. H. WHITFIELD.

And evidence being furnished by the Chancellor that they had passed the usual examination in a satisfactory manner, the Degree of B. S. (Bachelor of Science) was, on motion of Mr. C. Clark, conferred on the following named young gentlemen, and the Chancellor directed to deliver them their Diplomas on commencement-day, viz.:

WALKER L. CLAPP, ROBERT H. LOUGHBRIDGE, H. F. SIMRALL.

The committee appointed at a former meeting of the Board to revise the Laws of the University made a report, through the Chancellor, which was taken up and partly disposed of, and then laid over until to-morrow morning.

On motion, the Board adjourned to meet at nine o'clock to-morrow morning.

SATURDAY, JUNE 24, 1871.

The Board met pursuant to adjournment. Present:

His Excellency J. L. ALCORN, *ex-officio* President of the Board,
 Messrs. CHAS. CLARK, JNO. DUNCAN, J. TARBELL,
 C. W. CLARKE, T. D. ISOM, A. WARNER,
 G. C. CHANDLER, H. F. SIMRALL,
 THO. E. B. PEGUES, Secretary.

The committee to whom was referred so much of the Chancellor's report as refers to the filling of vacant chairs, and the reports of Professors, made the following report, viz.:

The committee to whom was referred so much of the Chancellor's Report as relates to the filling of the vacant chairs in the University, and also the reports of the Professors, beg leave to report that in the short time that they have had to consider the subject they have been unable to make the necessary investigations to enable them fully to report upon the various interesting questions involved, and will confine themselves to a few plain recommendations for the consideration of the Board.

1. That as to the recommendation of the Chancellor in regard to filling the vacant chairs, we recommend that the subject be postponed until some future meeting, and that a committee of three be appointed to correspond with distinguished educators, with a view to that end, when the necessities of the University require additional force.

2. As to the application of Prof. Garland for further scientific apparatus, we recommend that this be postponed until the Professor can be personally consulted with.

3. We recommend that the Executive Committee be authorized to make such expenditure at the rooms and cabinet of the Professor of Geology as are necessary for the preservation and proper display of the specimens.

4. As to the recommendation of the Professor of Law, we recommend that all resolutions heretofore passed requiring the location of the Law School on the University grounds be rescinded, and that the Executive Committee be authorized, upon consultation with the Professor of Law, to secure suitable buildings for the accommodation of the school as well as of the Professor. And that the Professor of Law, upon consultation with the Executive Committee, be authorized to exchange any duplicate copies of books in the Law Library for such text-books and reports of the Supreme and Circuit Courts of the United States as may be required.

5. We recommend that the report of Prof. Hilgard be postponed until the next meeting of this Board, and that a special committee on the Agricultural College be appointed, to report to that meeting.

And we further recommend the adoption of the following resolution, viz.:

Resolved, that the Faculty shall equalize and arrange their labors, so that the duties of all the departments and chairs shall be fully performed by the present corps of Professors and Assistants. And it shall be the duty of the Chancellor to see that this resolution is carried into effect; and in case the Faculty shall fail or disagree, then the assignment of duties shall be made by the Chancellor.

Respectfully submitted,

C. CLARK, *Chairman.*

On motion of Mr. Warner the report was received, and after discussion adopted, with the accompanying resolution.

The report of the committee on so much of the Chancellor's report as refers to the subject of a Chancellor's residence and repairs of Professors' residences and other buildings, through its chairman, made the following report, viz.:

The committee to whom was referred so much of the Chancellor's report as relates to purchasing, building, or leasing a house for a Chancellor's residence and houses for Professors, and also into the necessity and probable cost of repairing the edifices on the University premises, beg leave to report that, in their judgment, it is inexpedient at this time to erect a new residence; but suggest that the Executive Committee be instructed to inquire into the expediency and practicability of converting a part of one of the dormitories into a residence, suitable and convenient for a Professor's family; and that they may take the advice and plans of an architect to that end. They further recommend that the Executive Committee be instructed to have such repairs made on the edifices of the University as may be necessary to preserve them and keep them in tenantable order. They recommend that economy be observed in these expenditures, in view of the fact, as evidenced by a resolution before the Board, that the income from tuition will either be greatly reduced or entirely abolished.

Your committee are of the opinion that the enlarged resources put at the disposal of the Board should, at this time, be especially so used as to induce a much larger attendance of pupils on the Institution and a broader dispensation of its instruction.

Your committee have had no sufficient time to inquire what repairs of buildings are absolutely necessary to be made and the probable cost. They repeat, however, that such repairs should for the present be limited to the preservation of the buildings from injury and decay, and that the subject may be safely intrusted to the Executive Committee. The committee are not unanimous on the subject of leasing a house for the Chancellor. The majority incline to the recommendation on that subject. They recommend the passage of the following resolutions:

Resolved, that the Executive Committee be instructed to have such repairs made upon the buildings as will protect them from leakage, and preserve them from injury, and keep them in good tenantable order.

Resolved, that the Executive Committee be instructed to inquire into the feasibility of converting one of the dormitories into a residence for a Professor's family, and if it be found expedient and practicable that they procure plans from a competent architect, and report the same to the next meeting of this Board.

H. F. SIMRALL, *Chairman.*

Minutes of the Annual Meeting.

On motion of Mr. C. Clark, the report was received, and with the accompanying resolutions adopted.

The committee appointed to examine the account of the Treasurer made the following report, viz. :

The committee to whom was referred the Treasurer's account have the honor to report that they have examined the same, with the accompanying vouchers, and find that there has been received into the treasury :

From Auditor of Public Accounts, in warrants.....	\$38,551 19
From former Treasurer.....	4,752 26
Tuition.....	3,972 76
Fuel.....	1,571 70
 Total.....	\$48,847 91
Whole amount expended, as per vouchers.....	47,243 33
 Cash on hand.....	\$1,604 58

Your committee having examined the accounts and vouchers for expenditure, find them correct and just in all respects, and recommend that the same be approved.

C. W. CLARKE, *Chairman.*

On motion of Mr. Tarbell, the report was received and agreed to.

On motion of Mr. G. C. Chandler, it was resolved that a committee of three be appointed by the chair to codify the acts of the Legislature now in force incorporating the University, or in any wise pertaining thereto ; and when their work is completed and approved by the President of the Board, three hundred copies of the same shall be printed in pamphlet form, with the revised Laws of the University. Mr. Chandler requested to be excused from serving on this committee. The chair appointed Messrs. C. Clark, Tarbell, and Simrall.

On motion of Mr. Warner, it was resolved that a committee of three be appointed to inquire into, and report at the next meeting of this Board with regard to, the several appropriations made by the Legislature to this Institution at various times. Mr. Warner asked to be excused from serving on this committee. Whereupon the chair appointed Messrs. Simrall, Tarbell, and C. Clark.

On motion of Mr. C. W. Clarke, it was resolved that it is the sense of this Board that the agricultural scrip donated to this University by the Legislature be sold by the Governor, and the proceeds invested in bonds of the state ; and that there be a committee of five appointed by the President of the Board to take into consideration the best means for expending and appropriating the income of said fund ; and to report their recommendation to the next meeting of this Board. Mr. Clarke requested to be excused from acting on

this committee. Whereupon the President appointed Messrs. West, C. Clark, Pegues, Warner, and Isom.

On motion of Mr. Warner, it was resolved that the mileage for traveling expenses hereafter to be paid to the Trustees of the University shall be ten instead of fifteen cents per mile.

On motion of Mr. Tarbell, it was resolved that the resolution requiring that the Treasurer shall in no case be a member of this Board be rescinded.

Moved by Mr. C. Clark, that when this Board adjourn, it adjourn to meet on Tuesday morning, the 27th inst. Carried.

The report of Prof. Lyon was presented and read by the Chancellor. Moved by Mr. Tarbell, that the report be received and filed. Carried.

The chair announced Messrs. Tarbell, Duncan, and Simrall as the committee to correspond with distinguished educators with a view to the election of additional Professors.

The revision of the laws was then taken up and finished.

On motion of Mr. Tarbell, it was resolved that Governor Alcorn be appointed a committee to correspond with various literary men of the country with a view of securing an orator for our next annual commencement, and that the expense of said orator be paid by the University.

On motion of Mr. Chandler, it was resolved that each Professor be required to keep his residence at his own expense, during his occupancy of the same, in as good order and repair as he receives it.

On motion, the Board adjourned to meet on Tuesday morning, the 27th instant.

TUESDAY MORNING, JUNE 27, 1871.

The Board met pursuant to adjournment. The President being absent, Mr. C. Clark was called to the chair.

The following members answered to their names, viz.:

Messrs. C. CLARK,

C. W. CLARKE,

J. DUNCAN,

J. TARBELL,

A. WARNER,

T. E. B. PEGUES,

A quorum not being present, the Board adjourned to meet at nine o'clock on to-morrow morning.

WEDNESDAY MORNING, JUNE 28, 1871.

The Board met pursuant to adjournment. The following members answered to their names, viz.:

His Excellency J. L. ALCORN,	<i>ex-officio</i> President of the Board,	
Messrs. C. CLARK,	T. D. ISOM,	A. WARNER,
J. DUNCAN,		J. TARBELL,
	T. E. B. PEGUES, Secretary.	

Minutes read and approved.

Mr. Warner, from the committee appointed at a former meeting of this Board to adjust the claim of the University against Mr. G. M. Hillyer, reported that he had seen Mr. Hillyer, who promised to pay the same; but he (Mr. Hillyer) was soon after taken sick and died, and nothing further had since been done.

Mr. Isom was appointed on Reading-room Committee, in place of Prof. Lyon, who had resigned.

A communication was received from the Faculty, recommending that the degree of Doctor of Laws be conferred on the Rev. W. A. Scott, D. D., of San Francisco, California, Rev. Bishop Doggett, of Richmond, Virginia, and Prof. John W. Mallet, Ph. D., of the University of Virginia.

Mr. C. Clark moved that the communication be laid on the table, subject to call. Pending the discussion the Board took a recess to attend the commencement exercises.

A F T E R N O O N.

The Board reassembled. Mr. A. M. West appeared and took his seat.

The motion of Mr. C. Clark to lay the communication of the Faculty with regard to conferring the degree of Doctor of Laws on the table was fully discussed, and finally prevailed.

Mr. Warner moved that the Executive Committee be authorized to make such repairs and alterations in the gymnasium as they may deem necessary. Carried.

Mr. Warner moved that the room opposite the Chancellor's room, in the center building, be suitably fitted up as a meeting-room for the Executive Committee, and office for the Secretary and Treasurer. Carried.

The Board took a recess for one hour. On reassembling, a quorum not being present, the Board adjourned to meet at eight o'clock tomorrow morning.

THURSDAY MORNING, JUNE 29, 1871.

The Board met pursuant to adjournment. The following members answered to their names, viz.:

His Excellency J. L. ALCORN, <i>ex-officio</i> President of the Board,		
Messrs. C. CLARK,	T. D. ISOM,	A. WARNER,
J. DUNCAN,	J. TARBELL,	T. E. B. PEGUES.

Mr. Duncan introduced the following preamble and resolutions, which, on motion of Mr. Tarbell, were adopted:

WHEREAS, in the opinion of this Board of Trustees, the University of Mississippi should be a free institution for the education of the youth of this state; and whereas, in view of the late appropriation by the Legislature, as well as the recent act of Congress, creating a fund for the establishment of an Agricultural College, the Board believe the time has arrived to declare it; therefore

Resolved, that all tuition fees for students from this state, except in the Law Department, the Preparatory Department, and the Special Student Class, in all departments, be and the same are hereby abolished.

Resolved, that a matriculation fee of ten dollars, to be paid but once, will hereafter be required of all students.

On motion of Mr. C. Clark, it was resolved that the Executive Committee, four fifths of the members thereof concurring, be and they are hereby authorized and empowered to rent, lease, or purchase suitable buildings for two Professors' residences, or to so change, alter, or remodel one of the dormitory buildings, if in their opinion the same can be desirably converted, into two or more such residences. Provided, that should a majority, or three members only, concur, then their action shall be reported to the President of this Board, by whom it shall be submitted to all the members of the Board, a majority of whom concurring shall be necessary to confirmation.

On motion of Mr. Tarbell, it was resolved that a sum, not exceeding one hundred dollars, be and the same is hereby appropriated, to be expended, or so much thereof as may be necessary, in the presentation of prizes to pupils of the University during the next annual commencement week. Such prizes shall be known as the Trustees' Prizes. The subjects of competition and the prize, either a medal or money or other souvenir, shall be designated by the Faculty, and the award shall be determined by a committee of five disinterested citizens, who shall be selected by the Chancellor.

On motion of Mr. Tarbell, it was resolved that the sum of three hundred dollars, or so much thereof as may be necessary, be and the same is hereby appropriated for the purchase of chemicals for the Laboratory, to be expended and drawn in the same manner as the like appropriation for 1870.

On motion of Mr. Tarbell, resolved that the Treasurer be and he is hereby authorized and required to pay, on the order of J. G. Snedeker, the sum of ten dollars for extra printing for the University.

On motion of Mr. Tarbell, resolved that the sum of fifty dollars, or so much thereof as may be necessary, be and the same is hereby appropriated, payable on the order of the Proctor, to complete the payment for music furnished during the commencement.

Mr. Tarbell, from the committee to whom was referred the subject of a High School in connection with the University, made the following report, viz.:

The committee to whom was referred the subject of a High School in connection with the University respectfully submit the following preliminary report. We are of the opinion that a High School, under the direction of the Trustees of the State University, is desirable, as well for the interest of the people as for the success of the University. Apprehensive, however, that the resources at the disposal of the Trustees will not at present justify the necessary expense, and wanting absolutely the requisite time to develop a suitable plan for such a School, we content ourselves at this meeting by recommending the adoption of the subjoined resolutions, viz.:

Resolved, that recognizing the advantages to the University of a High School in connection therewith, and under the control of the Trustees thereof, upon a basis, first, of admitting a limited number from each county in the state—the qualifications for entry into such High School having reference to moral character and not to attainments, and without charge for tuition; and second, the usual general rules of admission into similar schools, without regard to localities—the object of such School being, first, to diffuse education among the people, and second, to prepare candidates for admission into the University, and third, to give to such as do not desire to enter the University a practical business education, suitable for the active duties of life; this Board, when the funds at its disposal will justify the enterprise, will undertake and complete the organization of such a School upon a plan to be hereafter matured and approved.

Resolved, that the committee to whom this subject was referred have leave, and they are hereby instructed, to consider and report fully on the same at a future meeting of the Board.

J. TARBELL, *Chairman.*

On motion of Mr. West, the report was received and agreed to, and the resolutions adopted.

Mr. Tarbell moved that the per diem of members of the Board of Trustees be hereafter limited to three days for attendance at the annual meeting of the Board.

Mr. Warner moved to amend so that no per diem be hereafter allowed to Trustees for attendance on meetings of the Board. Amendment lost; original motion also lost.

The Board took a recess to attend commencement exercises.

A F T E R N O O N.

The Board reassembled. Present as this morning.

On motion of Mr. Tarbell, resolved that the sum of fifty dollars be and the same is hereby appropriated, to be paid by the Treasurer on the order of Mr. John Duncan, to be by him presented to the Rev. W. C. Crane, D. D., with the thanks of the Board, for his able and instructive sermon preached at the opening of the commencement exercises on Sunday last.

Moved by Mr. Duncan, that the Chairman of the Executive Committee, with the Secretary, be appointed a committee to investigate the account of the Oxonian (newspaper), and to report to the next meeting of the Board. Motion carried.

On motion of Mr. Warner, it was resolved that Messrs. West, Isom, and Pegues be appointed a committee to prepare and publish in pamphlet so much of the minutes of the present meeting of the Board as they may deem advisable, and they are hereby authorized to have five hundred copies printed.

Mr. West having asked to be excused from serving as Chairman of the Committee on the Agricultural Department, Mr. Pegues was appointed in his place.

On motion, the Board adjourned to meet at six o'clock.

SIX O'CLOCK.—The Board met pursuant to adjournment.

On motion of Mr. C. Clark, the Board proceeded to the election of Secretary and Proctor. Tho. E. B. Pegues was duly elected by ballot.

The election of Treasurer was then gone into. On counting the ballots, Mr. A. Warner was found to be elected.

On motion of Mr. Tarbell, it was resolved that the Treasurer give bond in the amount of twenty-five thousand dollars (\$25,000), to be approved by the President of the Board.

On motion of Mr. Isom, it was resolved that the Proctor be directed to have a circular drive laid out and graded around the interior of the campus.

On motion of Mr. Duncan, it was resolved that the Secretary of the Board and the Chancellor of the University be appointed a committee to make a copy of the Laws of the University as revised at this meeting, with a view to their publication as heretofore determined.

On motion of Mr. Warner, it was resolved that it is the sense of this Board that the increase of the salaries of Professors shall commence from the time when said increase was made, and that Prof. Little receive pay from October 1, 1870.

Mr. Chas. Clark, Trustee, having reported that he has collected one hundred dollars, part of a piece of scrip sold by him, and which was supposed to be lost by the bankruptcy of the purchaser, and which was allowed him at a former meeting of the Board, it was, on motion, ordered that the same be received into the treasury.

On motion of Mr. Tarbell, it was resolved that it is the sense of this Board that His Excellency J. L. Alcorn, President of the Board, do call a meeting of the Board, at such time and place as to him may seem most suitable, between now and the opening of the session in October next.

On motion of Mr. Warner, resolved that the Executive Committee be authorized to have grates placed in the dormitories, and to procure sufficient coal in place of wood.

On motion, the Board adjourned *sine die*.

J. L. ALCORN, *President.*

THO. E. B. PEGUES, *Secretary.*

MINUTES OF A MEETING.

JACKSON, MISS., AUGUST 30, 1871.

Pursuant to the call of His Excellency the Governor of the State and *ex-officio* President of the Board, the Trustees of the University of Mississippi met this day. Present:

His Excellency JAS. L. ALCORN, President of the Board,		
Messrs. C. CLARK,	T. D. ISOM,	— WEST,
C. W. CLARKE,	J. TARBELL,	T. E. B. PEGUES.
J. DUNCAN,	A. WARNER,	

On motion of Mr. C. Clark, the reading of the minutes of the last meeting was dispensed with.

The Secretary read a communication from the Chancellor of the University. [See Appendix A.]

The communication was then taken up, and after discussion of that portion relative to the Preparatory Department, on motion of Mr. Duncan, it was resolved that the tuition fee in the Preparatory Department be abolished, by striking out the words "Preparatory Department" in the original resolution on tuition fees, as passed at the annual meeting in June last.

On motion of Mr. West, the subject of the election of a Law Professor, in place of Prof. H. Craft, resigned, was taken up.

Mr. C. Clark moved that the election of said Professor be postponed to the next regular meeting. Motion lost.

Mr. C. W. Clarke moved that the Board do now proceed to said election by ballot. Carried. Messrs. Warner and C. W. Clarke appointed tellers. On the first ballot no choice was made.

Mr. C. Clark then renewed his motion to postpone, which was carried.

On motion, the Board adjourned to meeting at eight o'clock this evening.

AUGUST 30, 1871, 8 O'CLOCK, P. M.

The Board met pursuant to adjournment. In addition to those present this morning, Mr. E. G. Peyton appeared, and took his seat.

Mr. C. Clark moved to reconsider the resolution to postpone the election of Law Professor to the next regular meeting. Mr. Warner seconded the motion, which was carried. The Board then proceeded to ballot, which resulted, on the first ballot, in the election of Mr. Thos. Walton, who received a majority of all the votes cast.

Mr. C. W. Clarke moved that applicants for admission into the University under the law granting scholarships shall be entitled to enter the Preparatory Department; subject, however, to the same qualifications as those heretofore entering that Department, and that they shall be at least fourteen years of age. Carried.

On motion of Mr. Tarbell, it was resolved that the President of the Board be authorized to prepare and publish a set of rules for the examination of candidates for admission into the University under the law granting free scholarships.

On motion of Mr. C. Clark, it was resolved that the committee appointed to revise the Laws of the University be authorized to publish, in pamphlet form, one thousand copies of the report as prepared by them.

On motion of Mr. C. Clark, it was resolved that the President of the Board be requested to draw his warrant on the Treasurer of the State for such sums of money as may be due to the University of Mississippi, or payable on account of interest due upon moneys standing on the books of the Treasurer to the credit of the University, and such other sums of money as may be payable to the University on appropriation for Law School, or such as may be otherwise due the University.

The committee to whom was referred the subject of the Agricultural Department made the following report:

Your committee beg leave to say that the funds not yet being provided, or rather available, it is not at present possible to put this department into full operation. They, however, think that preliminary steps may be taken to that end. They concur, in the main, with the views advanced by Prof. Hilgard, whose report is herewith submitted, that while ample instruction should be afforded in all branches connected with the science of agriculture, obligatory labor, except in so far as may be necessary for practical instruction, should not be imposed on the students. A small farm will be necessary to exemplify the teachings of the Professors. While the students in this department should not be compelled to labor on this farm, still

they may be encouraged to do so by being paid for any work they may perform. They think twenty acres will be sufficient for all present purposes, and will practically exhibit all the results of different modes of culture, as well as the effects of various fertilizers and the workings of the many labor-saving implements now in use.

Your committee are not prepared, nor do they think it proper, at present, to make any recommendation as to number of Professors, cost of buildings, general outfit, etc. They, however, recommend to the members of the Board the careful perusal of the report of Prof. Hilgard [see Appendix B], believing that it will contribute much to the formation of right views on the whole subject.

They beg leave to recommend the passage of the following resolutions as preliminary steps toward the final organization of the department:

Resolved, that Prof. Hilgard be appointed Professor of Agricultural Chemistry and the special Geology and Agriculture of the State, and that he be requested to deliver a course of lectures on these subjects during the current year.

Resolved, that so soon as funds are provided, the Executive Committee be authorized to elect a Superintendent of the Farm, and to take the necessary steps to put the same in a state of preparation.

THO. E. B. PEGUES, *Chairman.*

The report was received and the resolutions adopted.

On motion of Mr. Duncan, it was resolved that the proceedings of this meeting be published in connection with the minutes of the annual meeting, and that the report of Prof. Hilgard on the Agricultural Department be also published with the minutes.

On motion of Mr. Tarbell, it was resolved that Mr. C. Clark be authorized to prepare and publish three hundred copies of the statute now in force relating to the University of Mississippi, and a synopsis of all the laws repealed relating to the same.

Mr. Tarbell presented account of the Clarion (newspaper) for printing circular letter for the Committee on Additional Professors, which, on motion of Mr. C. Clark, was allowed, and ordered to be paid. (Amount, \$4.50.)

No other business being before the meeting, on motion of Mr. Warner, the Board adjourned *sine die*.

J. L. ALCORN, *President.*

THO. E. B. PEGUES, *Secretary.*

APPENDIX.

A.

EXTRACT FROM THE CHANCELLOR'S REPORT TO THE TRUSTEES.

* * * * *

II. COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS.

I herewith present an elaborate report of Prof. E. W. Hilgard in relation to this department, the result of his own independent investigations, together with information derived by him from comparison of views and discussions held during a convention, in Chicago, of Presidents and Professors of Agricultural Colleges, at which he was present. It is hoped that the valuable contribution made by Prof. H. in this report, on this important subject, may receive the earnest attention of the Board, and that at their present meeting initiatory steps may be taken toward the organization of the College in connection with the University; so that, even during the next session of the University, such students as may indicate a desire to become hereafter pupils in the Department of "Agriculture and the Mechanic Arts," may have such direction given to their preliminary studies as may fit them for the course of study ultimately to be adopted when the College shall have been fully organized.

B.

REPORT ON THE ORGANIZATION OF THE DEPARTMENT OF AGRICULTURE AND THE MECHANIC ARTS.

DR. JOHN N. WADDEL, *Chancellor University of Mississippi*:

Dear Sir,—In accordance with suggestions made by yourself as well as several members of the Board of Trustees, I endeavored, during my recent attendance upon the meeting of the American Association for the Advancement of Science, to obtain as much information as possible concerning the organization, practical working, and success of the several Agricultural and Mechanical Colleges now in operation in the

United States, under the land-grant made for the purpose. I found, however, that but very few representatives of such institutions were in attendance at Indianapolis; and that a call for a special convention of presidents and professors of agricultural colleges, to meet at Chicago on the 24th inst., had been issued. Under the circumstances, I thought it incumbent upon me not to let this unusually favorable opportunity pass unimproved; and so, after the adjournment of the Indianapolis convention, proceeded to Chicago.

I found the attendance much larger than, from the limited publicity of the call and short notice given, I had been led to expect. The meeting seemed in this case *really* to justify the use of a much-abused phrase—viz., to “supply a want long felt.” It appeared in the course of the discussions, that the predominant thought of the originators of the call had been the establishment of uniformity in the agricultural experiments conducted by the several institutions; and some of the delegates could not, to the last, divest themselves of the idea that this subject should have been made paramount. But the great majority evidently held that the consideration of the educational interests, and of the results reached by the various plans of organization and study, was first in importance; and the reports made thereon, successively as called upon, by the presidents or other representatives of twelve institutions (two or three only of importance being unrepresented), were decidedly the most interesting and practically important feature of the meeting. The general conviction of the great benefits to be derived from a more frequent personal interchange of views, soon found expression in the appointment of a committee on the formation of a permanent organization. In view of the brief space of time allowed for consideration, and of wide differences of opinion as to the scope to be given to the association, the committee reported in favor of referring the whole subject to a committee consisting of the officers of the convention; the latter adjourning, after a two days’ session, to meet at the call of the president, Dr. Gregory, of the Illinois Industrial University.

I herewith subjoin the press reports of the debates, tolerably correct as far as they go, but of course very defective as regards many important points of detail, concerning which I took pains to inform myself as fully as possible in private conversation. I will endeavor to present to you as briefly as may be the general results arrived at, which to my mind settle conclusively the plan that ought to be adopted in the organization of our own agricultural and mechanical department.

The general plan of instruction varies, as you are aware, between two extremes; represented, respectively, by the original organization of the Agricultural College of Pennsylvania on one hand, and by the Sheffield School of Science, at Yale College, on the other. In the latter institution, the theory and practice of agriculture and the mechanic arts are taught in the lecture-room and laboratory alone. In the Pennsylvania College the practice, or in other words the *handicraft*, of agriculture was originally made altogether the predominant feature; it was a large model farm, on which the students were the laborers; their spare time only, so to speak, being devoted to the study of principles, and general education. It was thought that this plan would best conduce to what is popularly thought to be *practical* education, and secure popular support and patronage to the institution; the more as the labor of the students, though not directly compensated, served to diminish greatly their expenses in the way of boarding, lodging, etc.

At first this system seemed destined to be successful, but after a few years it

became manifest that it did not fulfill the requirements of the times. The constant drudgery of a minimum of three hours' daily labor was felt to be particularly onerous by the more advanced students, and by those "farmers' sons" specially intended to be benefited by the school, but who had long ago acquired the mere handicraft of agricultural operations, and could not see the propriety of thus detracting from their opportunities for higher education, and, as they thought, "being compelled to support the institution by their labor."

Without examining in detail, for the present, all the concurrent causes, it may suffice to state that, three years ago, the patronage of the institution had so grievously dwindled, that a total reorganization became imperative. The essential changes made were a diminution of the hours of obligatory and uncompensated labor to about one half—say ten hours per week—and its restriction, as obligatory, to the Freshman and Sophomore years. This system has had but a two-years' trial, and under it the prosperity of the institution has risen to a satisfactory level. Nevertheless, I think I interpret rightly the remarks of some of its officers in stating, that the tendency is toward a still further reduction of obligatory mechanical labor, rather than in the reverse direction.

The experience of the Pennsylvania College has thus, in a comparatively brief space of time, verified the conclusions arrived at both in England and on the continent of Europe—viz., that truly practical education in agriculture is not that which, by a mere routine repetition of mechanical operations, interlarded with a little explanatory theory, attempts to conciliate the popular prejudice against "book-learning." The subject has been well and thoroughly investigated by Prof. McChesney, of Illinois, whose valuable paper on "Agricultural Education in Europe," published in the report of the Commissioner of Agriculture for 1868, has exerted a most beneficial effect upon the educational programme of the American colleges just being organized.

But before passing to the consideration of that golden mean which seems destined to realize, to the greatest possible extent, the benefits of technical education, and which has been successfully introduced into most of the Western colleges, let us for a moment consider the actual and possible results of the other extreme above referred to—viz., that of the Sheffield School. It is hardly claimed even by its most ardent apologists, that it would be a proper training-ground for the bulk of the agricultural population; yet it may be seriously questioned whether, even as it is, it does not contribute more toward the progress of agriculture and the mechanic arts than would be the case with an institution based on the so-called "practical" plan. The little knowledge, apart from mere practice, with which the student is sent forth from the "practical" school, will be extremely apt to be of that dangerous order which obfuscates common sense, while favoring that arrogant self-reliance, which is as characteristic of the sciolist, as modesty and reticence is of the true scholar. It is too often the case that the men who plume themselves upon being pre-eminently *practical*, are so only with reference to one particular locality or set of circumstances, and fail utterly so soon as removed from the limited circle where their memorized rules are applicable. The truly practical man is he who, by combining the knowledge of principles *and* practice, is enabled to adapt the latter to any change of circumstances and external conditions.

While, therefore, an institution like the Sheffield School may not return many students to the cornfields whence they came, on account of the taste acquired for

Appendix.

more abstract professions, it at least sends forth scholars who, either as teachers, superintendents, or in numerous cases as amateur farmers in later life, contribute largely to the progress and elevation of the pursuit of agriculture. As one of the delegates at the Chicago convention pregnantly remarked, "an institution whence have issued Johnson's works on 'How Crops Grow' and 'How Crops Feed,' can hardly be charged with failing to benefit the cause of agricultural education."

But since we are nowise compelled to accept either of the extremes mentioned, it behooves us to consider what are the proper ends to be attained in the establishment of these colleges. It is thought by some that the immediate object in view should be to educate, as far as possible, "every farmer's son in the country;" but such diffusive education can never be the object of the higher educational institutions until we shall be much nearer to the millennium. Before "every farmer's son" shall be able to receive and practice the principles of agriculture, the most complicated of all arts, it is necessary that the rudiments at least of Natural Science should be taught in the primary schools—that boys should be taught to reason in Physics, Chemistry, and Physiology, as they now do in Arithmetic. That this is a state of things far from Utopian, has already been sufficiently proven. It will become less and less difficult as our knowledge, as well of the subjects themselves as of the rational method of teaching, progresses. But at present, and for some time to come, the higher education in agricultural as well as other colleges is likely to be the privilege of comparatively few, whose fortune, early opportunities, or talent, allow them to attain that amount of preliminary training, and to spend in their college course that amount of time and money (whether their own or provided by scholarships), commensurate with the magnitude of the end to be attained.

In the words of the able committee report on the course of study in the Illinois Industrial University: "The thorough mastery of these arts, and of the sciences applicable to them, requires an education different in kind, but as systematic and complete, as that required for the comprehension of the learned professions. It thus avoids the folly of offering, as leaders of progress in the splendid industries of the nineteenth century, men of meager attainments and stinted culture; and steers clear also of that other and absurder folly of supposing that mere common school-boys, without any thorough discipline, can successfully master and apply the complicated sciences which enter into and explain the manifold processes of modern Agricultural and Mechanic Art. Nor is it forgotten that man is something more than the artisan, and that manhood has duties and interests higher and grander than those of the workshop and the farm. Education must fit for society and citizenship, as well as for science and industry."

It is a maxim well settled by the history of civilization, that learning and enlightenment radiate from centers, whose influence in elevating the general standard of education is sensibly proportional to the elevation of their own standards respectively. To lower the standard on pretense of benefiting a larger circle, has ever proved a lamentable failure, however plausible it may sound in the mouth of a demagogue on the stump. Rapid progress in popular enlightenment has ever been achieved rather through the example and influence of a few shining lights, whose leadership the masses strove to follow. A Dickson in every county of the state would do far more toward the popularization of rational methods of agriculture, than any amount of diluted knowledge diffused among the population could do in an equal length of time.

While, therefore, access to the direct benefits of the institution should be as easy as consistent with its limited funds, we should stoutly insist that its main object is to impart, besides a general education, a thorough knowledge of the principles of agriculture, combined with such an acquaintance with its practice as will enable its graduates not only to know *how things should be done*, but to do them themselves in the field. But, beyond the practice requisite to attain this end, the mechanical operations should not be made to encroach upon the time of the student; nor should the farm, upon which this practice is to be acquired, be considered otherwise than as a means of instruction, both by way of exercise and example, in the details. In the latter respect it should and must be a "model," but not in the sense of pecuniary success; it being fully understood that the latter can only result from a judicious application of the general principles to local circumstances infinitely varied. The flagrant failure of the old-time "model farms" to educate truly practical men, resulted chiefly from their being accustomed to carrying out a certain routine, necessary to pecuniary success in that particular locality, but perhaps fatal to the same in any other.

A truly "model" farm cannot afford to be embarrassed by the requirements for instruction; and still less can instruction in general principles afford to be hampered by local conditions of pecuniary success. This is the verdict of dearly bought experience.

Apart, however, from its object as a means of instruction, the Agricultural College farm should, and is required by law to, subserve another important but clearly distinct purpose—viz., that of carrying on agricultural experiments. This is a delicate and most difficult duty, if properly performed; and is in the last degree incompatible with that lucrative ness which is the first postulate of a "model" to be copied.

Of course it would be very desirable that a *truly model farm*, in every sense, should be near, or even attached to, the college; and this is the case in several now existing. But then it must be distinctly understood to be a separate concern, and that neither experimenting nor instruction are lucrative in their nature. Such a farm, to be looked at and worked on, if desired, but not otherwise interfered with by the agricultural students, may be usefully established at any time when capital for the purpose may be at disposal; but it is not to be considered a matter of primary necessity, though useful as an illustration of correct application of principles to a particular case.

It follows from the above considerations, that the labor required for the cultivation of the college farm should be provided for independently of the obligatory labor of students. Nevertheless, it is undoubtedly desirable that those who may wish to perform agricultural labor, beyond that required as a part of instruction, should be afforded opportunity of doing so. And this is actually the practice of the majority of our agricultural colleges, labor so performed being paid for by the hour, according to kind or quality, or by the job, as the case may be. In Western colleges especially not only do students thus materially reduce their expenses, but the useful occupation thus afforded, whether on the farm or in the workshop, contributes materially toward the preservation of good health, order, and morality. Of course the amount of labor thus obtained will vary greatly; but the operations of the farm generally can and should be extended in proportion as the demand for such occupation may justify. This system has been carried out most successfully and extensively at the Illinois Industrial University, as well as at the Michigan College of Agriculture. At the Iowa College, thus far, all the labor has been per-

formed by students; but the experience of that institution, exceptionally favorable in this as well as in some other respects, is perhaps too brief to serve as a safe basis elsewhere.

The dormitory system (conjointly in many cases with a Commons Hall connected more or less directly with the college farm) has thus far been introduced into most of the colleges now in operation—more, it would seem, from the force of habit than from a conviction of its adaptation to the best interests of education. The military discipline concurrently established has, in several cases, prevented the serious troubles mostly attendant upon that system; but there is a decided disposition not to have any more of it hereafter, and to dispense with it, when practicable, where it exists. At the Illinois Industrial University, as well as at that of Iowa, a very successful trial has been made of a system of self-government among the students—offenders against the rules adopted by them, and ratified by the faculty, being brought before a court elected by themselves, which generally punishes by fine. Whether this system will stand the test of time remains to be seen; but the faculty seem altogether hopeful of its success, thus relieving them from the most disagreeable and thankless duties which it falls to the lot of college officers to perform.

A striking feature in all, or almost all, the Western colleges is the unquestioned admission of young women to any of the courses they may desire to follow; and the universal testimony goes to show that not only do they, as a general thing, fully hold their own as compared with the male students, but that their influence on the behavior and diligence of the other sex is extremely beneficial. It may perhaps be fairly assumed that the benefit is reciprocal; but it has been a matter of surprise to me to find almost the same courses prescribed to both sexes. Though not perhaps in accordance with the “advanced” views of the times, it has seemed to me that a special course in *housekeeping*, in all its branches, might advantageously be substituted for some of the studies now pursued—if not inconsistent with the XVth Amendment.

I must here allude to a wide-spread prejudice which, in this state as well as elsewhere, has manifested itself with reference to the local association of literary and “professional” students, with those of the colleges in question. It is thought by some that there is a natural antagonism between the two classes, and that, in order to protect the latter class against the airs of superiority assumed, and more or less “demoralizing” influence exerted by the former, it would be necessary to separate them as widely as possible; the more as for the agricultural students a different kind of discipline would be necessary.

This whole argument is based primarily upon the supposed existence of a prejudice against the comparative dignity of agriculture and the mechanic arts, as connected with manual labor. But it forgets that this prejudice, so far as it can claim any consideration in our day and country, is directed against the mere *handicraftsman*—the uneducated laborer who works by rote only, like a machine. It is this connection which has engendered the prejudice on the part of the educated classes. But if any such feeling against physical labor, *as such*, even when connected with high mental culture, still rankles in the public bosom, it certainly is the peculiar duty of our educational institutions to discountenance it as a relic of barbarism, and to assert stoutly the equal dignity of all departments of knowledge. Indeed, few of the “learned” professions require so great a scope of scientific knowledge, sound judgment, and common sense, as is involved in a thorough understanding of the principles and practice of agriculture.

The objection against the association of the two classes of students might be valid, were it contemplated that those of the industrial colleges should be mere apprentices to a *trade*. So far from this, the law of Congress explicitly requires that they shall be *educated*; and as educated men they will be socially the peers of those similarly trained, whatever be their particular occupation. Nor can there be any valid reason for subjecting one class of students to a discipline different from that prescribed for the other, if the true object of the Industrial Colleges be kept in view. To "train the millions to their trades" is equally beyond their power and their province.

Practically, the difficulties encountered on this score have been insignificant in the West. And even in the East, where the literary corps of Yale, Harvard, and Amherst were wont to look down a little upon the "Aggies," a sound beating in a boat-race, lately administered by the latter, has brought about quite a revulsion of feeling. The compulsory labor system has doubtless been largely concerned in perpetuating the ancient prejudice; and its abandonment will remove the last bar to the recognition of industrial students as members of the "professional" class.

As regards the length of the full course, it is without exception, I believe, fixed at four years; "and that," as a distinguished delegate at Chicago said with emphasis, "is full short for what they ought to learn, in justice either to themselves or the institution. It would be sufficient did they but come better prepared."

I have but cursorily adverted to the mechanical department of these colleges. There are but few, so far, in which the mechanic arts have been given equal prominence with agriculture; among these are Kentucky University and the Illinois Industrial University, where regular workshops have been erected; so that, e. g., a the last-named institution, a complete steam-engine was last year constructed by the advanced class. The plant of this department is of course expensive; and while in Minnesota, for example, it may fairly claim first attention as being first in importance, for the same reason agriculture should in this state enjoy a similar precedence, so long as a dilution of the available resources upon both branches simultaneously would emasculate both.

As regards military instruction, it has in most cases been found to weigh heavily on the institutions, unless some other chair was filled by an incumbent able and willing to perform this besides his regular duties. A strong disposition was manifested by the convention toward a removal by Congress of the military clause as obligatory upon the colleges, unless special provision were made for a detail of United States army officers for the purpose.

As regards the composition of the Faculties, the departments are subdivided in a great variety of ways, according to the means of the institution. I have found no reason to change the general programme submitted to you, some time ago, with reference to the special case of our agricultural and mechanical department, and its extremely limited means, so far as we can at present foresee.

To fulfill the primary conditions of the grant there will be required, in addition to the chairs now established (though not all filled), the following appointments:

1. A Professor of Practical Agriculture in all its branches, including dairy-farming, stock-raising, and fruit-culture.
2. A Professor of Technology and the Mechanic Arts.
3. A Superintendent of the Farm.

This minimum array of employees presupposes, of course, that—

1. The Chair of Civil Engineering be filled; also,

2. The Chair of Botany and Zoölogy; Horticulture to be included in the same.

3. That Agricultural Chemistry, as well as the special Agriculture and Economic Geology of the State, be otherwise provided for.

The latter subjects might, with particular propriety, be taught by the State Geologist, who must be presumed to be, *ex officio*, most especially competent in the premises. The results of the geological and agricultural survey of the state (the field-work of which is now as nearly completed as for the present may be expedient) would thus be promulgated and rendered available to the progressive men of the state, in the most direct and authentic manner; while the remaining office-work, together with such as is involved in the continually increasing demand for information and analyses of all kinds, on the part of the agricultural and industrial population, could still progress as heretofore under his direction, in the hands of competent assistants.

It need hardly be insisted on that in order to make the above "*personnel*!" suffice for the requirements of instruction, the greatest care in the selection of incumbents is absolutely essential. It is comparatively easy to find men who can, or think they can, teach either theory *or* practice satisfactorily; but it is far from common to find those who combine both, especially when the range of knowledge required is great. No one who has not made the subjects to be taught a special study, and given proof, by independent research, of his ability to teach without a text-book before him, should be deemed competent to fill the chairs in question. The superintendent of the farm should be a man not only of practical experience and common sense, but of sufficient education and understanding of agricultural science to enable him to second, intelligently, the plan of instruction pursued by the professor of agriculture, and to carry out experiments prescribed.

The college farm need not at first be very large—no larger than is requisite for the purpose of exemplifying the uses of the various improved implements, manures, and modes of culture of the different crops suited to the climate, to such an extent that every student may be enabled to become personally conversant with them. And the immediate outlay required for such an establishment would not be very great, so long as matters are not complicated by entering to any large extent upon cattle-raising and dairy-farming, which of themselves necessitate a large plant.

As for purely experimental plots, while ultimately a matter of considerable importance, I do not think they ought to be allowed to encroach upon the primarily needful provision for agricultural education, until funds shall be more abundant than at present is likely to be the case.

A botanical garden, with green-house and propagating pits, are of course essential prerequisites to successful instruction in the important department of Botany and Horticulture. They should be established concurrently with the farm, under the direction and superintendence of the professor.

A collection of improved implements is also indispensable. This, however, can probably be obtained at small cost, in view of the fact that no advertisement can be more useful to the manufacturer, than the exhibition and use of his implements at the State College of Agriculture. Most of the Western colleges have thus, I find, received the major part of their stock of implements either as presents, or at a heavy

discount from the selling price. Similar advantages can no doubt be secured for our institution, if proper steps in that direction be taken.

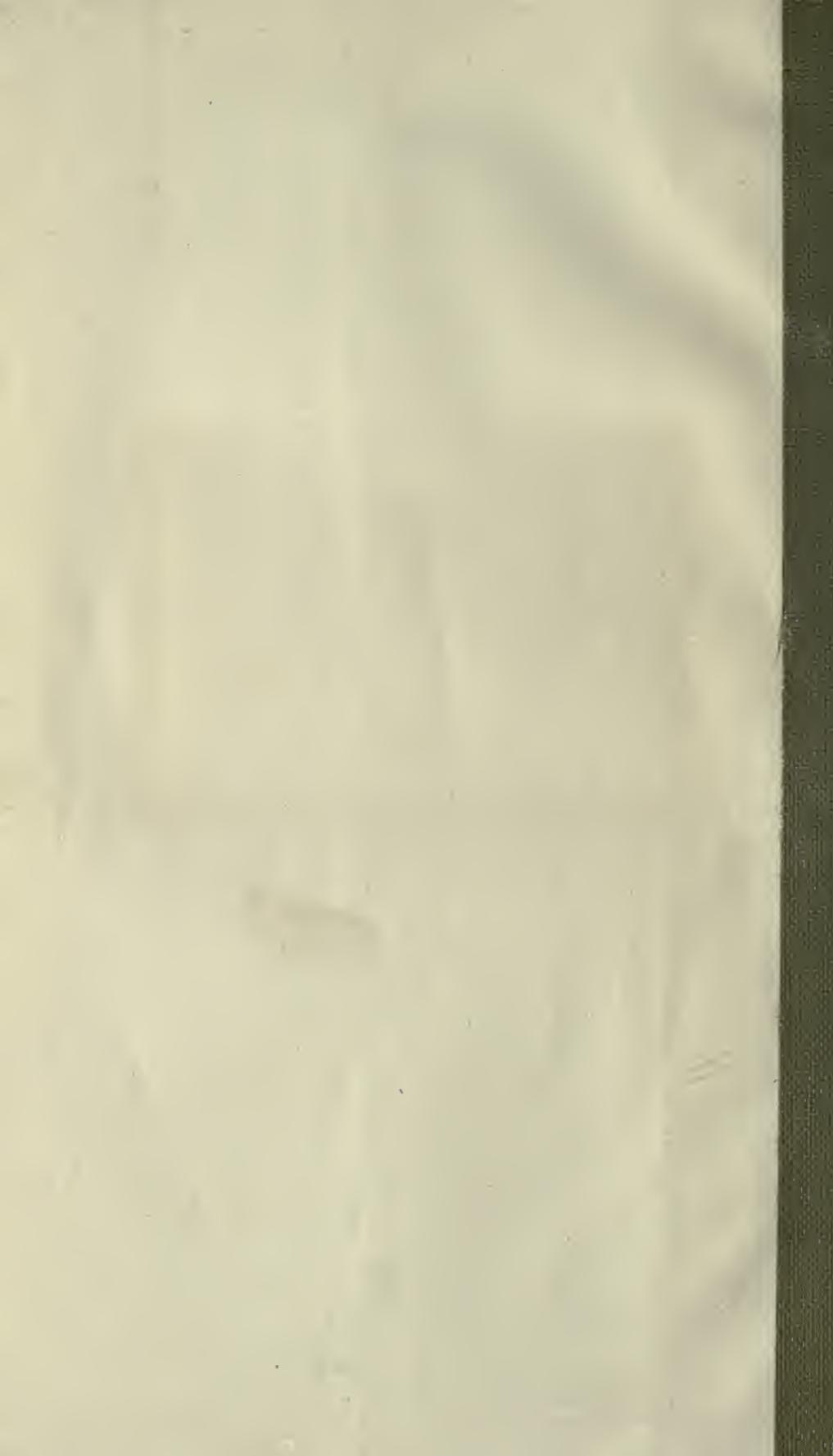
I estimate that an expenditure of from six to eight thousand dollars, applied with a strict view to prime necessities, would secure a plant sufficient to form such a basis for practical instruction in the agricultural department as to insure a fair start. Much more than this will of course become necessary as the classes advance and increase in numbers; but we may confidently hope that the magnitude of the interests involved, and the direct benefits accruing to the industrial classes, will induce a wise liberality toward the institution as necessities may arise. But for the additions made to the congressional grant by state appropriations, as well as donations and endowments from individuals and communities, several of the most successful institutions in the country could scarcely have been called into existence, much less launched on their present career of usefulness and prosperity.

All of which is respectfully submitted.

EUG. W. HILGARD,

Professor of Experimental and Agricultural Chemistry.

UNIVERSITY OF MISSISSIPPI, August 29, 1871.



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